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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
| 10/069,302 | 05/10/2002 | Bernd Lohmuller | 30151/38183 | 2018 |

7590 05/25/2005

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| EXAMINER |
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TRAN, LEN

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| ART UNIT | PAPER NUMBER |
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1725

DATE MAILED: 05/25/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/069,302

Applicant(s)

BERND ET AL

Examiner

Len Tran

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 14 March 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 20-22, 24-28, 30-44 and 46-51 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 20-22, 24-28, 30-44 and 46-51 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

3. Claims 20-22, 24-27, 40-42, and 45-46 are rejected under 35 U.S.C. 103(a) as being unpatentable over GB 1,211,849, and further in view of Bonikowski et al (US 4,221,947) and MacCraven (US 4,437,904).

GB '849 disclose an apparatus and method of manufacturing a billet (strip) comprising the steps of transporting the billet along a transport track, such that the billet comes to contact with contact elements, which are connected to a voltage source, allowing an electrical current to flow through a segment of a billet, wherein the contact elements and the billet is made of

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aluminum (page 2, lines 80-82), and wherein the flow of the electrical current causes the billet to be annealed at low stress. The apparatus further comprise of guiding means to guide the contact elements (rotor) to transport the billet.

GB '849 lacks the mentioning of a cold processing mean comprising a drawing die and a new added limitation, *a transport track for moving the billet through the apparatus, wherein the section of the transport track provide with a protective gas.*

However, a drawing die, terminal die, within a cold processing mean is conventional in the wire annealing art, since it is the last device of the annealing apparatus.

Bonikowski et al mentions the conventional drawing die (col. 4, lines 60-64) as the last step for annealing the wire.

Therefore, it would have been obvious to one of ordinary skill in the art at the time applicant's invention was made to have a terminal die as taught by Bonikowski et al, in GB '849, in order to complete the annealing process.

Furthermore, MacCraven discloses using protective gas on the transport track for the purpose of adjusting the ambient or wire temperature as appropriate to maintain the desire temperature values within the desired annealing range (col. 6, lines 46-56, col. 6, lines 25-34).

Therefore, it would have been obvious to one of ordinary skill in the art at the time applicant's invention was made to provide protective gas as taught by MacCraven, in GB '849 in order to control desired annealing temperature.

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5. Claims 28, 30-39, 44, 47-51 are rejected under 35 U.S.C. 103(a) as being unpatentable over GB '849 in view of Bonikowski et al (US '947) as applied to claim 20 above, and further in view of MacCraven (US 4,437,904).

GB '849 and Bonikowski et al disclose the claimed invention above, but fails to teach guiding means being deflection rollers and comb rollers, cooling medium is oil or gas, and two contact elements are provided with separate drive means.

However, MacCraven discloses an aluminum strip to be annealed driven by deflection rollers (27, 28, 40), to a cold processing mean (31), wherein the cooling medium is either gas or oil (col. 4, lines 52-59), and that the contact elements are provided with separate drive means. MacCraven disclose the above differences for the purpose of ensuring a desired mechanical and electrical properties are achieved in the finished wire product.

Therefore, it would have been obvious to one of ordinary skill in the art at the time applicant's invention was made to provide the above differences taught by MacCraven, in GB '849 and Bonikowski et al in order to ensure proper mechanical and electrical properties.

Response to Arguments

4. Applicant's arguments filed 3/14/05 have been fully considered but they are not persuasive.

Applicant's main argument is that MacCraven fails to teach a protective gas within the transport track, and that MacCraven instead teaches a cooling gas. Examiner respectfully

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disagrees. Clearly shown by MacCraven in column 6, lines 25-35 and lines 45-56, the gas is not a cooling gas. The "gas" is in the insulated chamber (47), within the transport track. After passing through the chamber, then the strip is introduced in a cooling section (55) as shown in figure 4. Therefore, MacCraven clearly teaches the claimed invention.

Furthermore, applicant argues that GB '849 does not disclose annealing aluminum billets, but teaches drying aluminum foil. Examiner again respectfully disagrees. Lines 11-45, GB '849 mentions the aluminum foil is annealed.

Conclusion

5. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

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Inquiry

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Len Tran whose telephone number is (571) 272-1184. The examiner can normally be reached on M-F, 8:30 - 5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tom Dunn can be reached on (571) 272-1171. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Len Tran
Examiner
Art Unit 1725



LT
May 13, 2005